

AP ENVIRONMENTAL SCIENCE

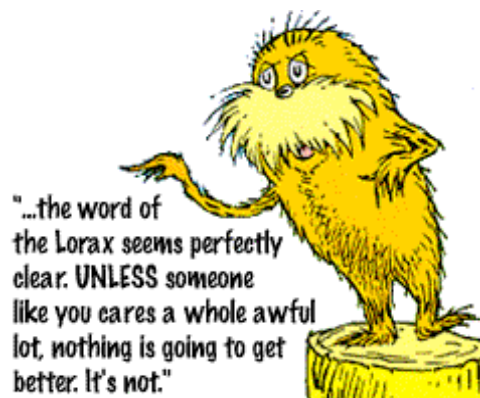
(A.P.E.S. Homepage) semapes.wikispaces.com

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"...the word of the Lorax seems perfectly clear. **UNLESS** someone like you cares a whole awful lot, nothing is going to get better. It's not."

Welcome to APES! We will cover major environmental topics such as ecosystems, population, global change, & pollution. A science and inquiry based course will have a large laboratory and field investigation component. APES is this type of course and it allows students to learn about the environment through first hand observation. Many times we will be going outside for our studies. A mandatory field trip permission form will be kept on file for each student. Parents should be aware that their student will be on and around campus periodically as part of the course. My hope for you is that you will come out of the class as an informed citizen regarding the issues and science surrounding the environment.

GRADES: (See District Policy on Grading and Retesting in your student handbook or online)

BEHAVIOR: All school and district rules and student code of conduct apply in the classroom. Due to the discussion based nature of this class and any other class please be respectful of all my class times. Please do not interrupt or disturb any of the other classes.

MATERIALS: Binder or Spiral Notebook, Pen/Pencil, Field Trip Release Form, Access to a computer with Internet (Including access to: semapes.wikispaces.com)

Required Text: Living in the Environment by H.G. Miller

Required Supplemental Text: Environmental Science (2nd Ed.) BioZone Biology Modular Workbook

Suggested Text: Environmental Science by Richard T. Wright

Suggested Supplement: Cracking the AP Environmental Exam (The Princeton Review) by Baker & Liggert; Other Supplements: 5 Steps to a 5 & Barron's Guide to Environmental Science

TUTORING: 8:05-9:05 am Tuesday & Friday *All other tutoring by appointment only*

TESTS: All tests in this class will be timed. This is to prepare you for the AP exam. Tests will be multiple choice and free response. It is my responsibility as an AP teacher to prepare the students for the AP exam and modeling the exam is a means toward preparation.

AP EXAM DATE: Monday, May 6th 2013 @ 8am (Location TBD... Library?)

COURSE OUTLINE: As mentioned above the course will cover major environmental topics with supplemental labs to increase understanding of a particular topic. Information will be listed on the website along with other pertinent information including exams, quizzes, projects, and deadlines. We will discuss each of the assignments in class in preparation for the exam. All due dates are subject to change and will be changed with ample warning and discussion.

For the most accurate calendar please visit the semapes.wikispaces.com webpage to see a complete up-to-date layout of the course.

1: The Earth's Systems: Tentative Test Date MC w/FRQ (A) 9/13/12 or (B) 9/14/12: Earthquakes, volcanoes and plate tectonics can be linked to mantle movement. Soil depends on climate, rock type, and particle size. Interactions between Earth's surface, rotation, and Sun drive atmospheric circulation. Freshwater is a scarce but essential commodity with many issues. (pp. 10-37)

2: Natural Ecosystem Change: Tentative Test Date MC ONLY (A) 10/1/12 or (B) 10/2/12: Nutrients and elements constantly cycle through the ecosystem in a complex series of reactions and interactions. Microbial activity plays a fundamental role in biogeochemical cycling. Ecological succession is a natural process by which an ecosystem changes over time. Ecological change can involve both small and large scales over short or long time spans. (pp. 64-80)

3: Ecosystems: Tentative Test Date MC w/FRQ (A) 10/18/12 or (B) 10/19/12: Biotic and abiotic factors contribute to the characteristics of an ecosystem. Organism's range is limited to the ability to exploit a habitat and compete for or share resources. Trophic levels and food chains describe how energy moves through an ecosystem. Only a fraction of the energy in one trophic level is transferred to the next level. (pp. 39-63)

4: Population: Tentative Test Date MC w/FRQ (A) 11/7/12 or (B) 11/8/12: Populations are dynamic collections of interbreeding individuals. Populations show attributes not shown by individuals alone including natality, mortality, survivorship, and age structure. Population growth is regulated by density dependent and independent factors. Intraspecific and interspecific interactions can be beneficial, neutral, or harmful to an individual. (pp. 81-101)

5: Land and Water: Tentative Test Date MC 2XFRQ (A) 12/4/12 or (B) 12/5/12: Agriculture and forestry require careful management of resources to ensure their long term sustainability. Intensive farming practices require the input of large amounts of water and energy. Careful land management and development reduces environmental disturbance. Many fisheries have been over fished and require management through restrictions or closure. (pp. 123-153)

6: Investigating Ecosystems: Lab Report with Final Exam Review: Populations are usually too large to assess without sampling. Common sampling methods include quadrats, transects, mark and recapture, and netting and trapping. Information about the physical environment is important. Fieldwork should involve due care and respect of organisms and the environment. (pp. 102-120)

7: Energy: Tentative Test Date MC 2XFRQ (A) 2/12/13 or (B) 2/13/13: Energy cannot be created or destroyed, it is simply transformed from one form to another. Non-renewable resources provide immediate low cost power in the short term. Renewable energy technology is rapidly becoming more efficient and more reliable. Increasing the efficiency of energy usage can dramatically reduce energy demands. (pp. 154-175)

8: Pollution: Tentative Test Date MC 2XFRQ (A) 3/21/13 or (B) 3/20/13: Pollutants come from a variety of sources and activities. There are environmental, health, and economic costs of pollution. Many pollutants have a long term effect on health and the environment. Reducing both usage of materials and waste greatly reduces pollution. (pp. 179-203)

9: Global Change: Tentative Test Date MC 2XFRQ (A) 4/16/13 or (B) 4/15/13: Human activities can interfere with the environment on both a local and on a global scale. Global warming and climate change have severe effects on the environment. Human activities have caused the Earth to lose much of its biodiversity. Species and resources can be managed sustainably. (pp. 204-229)

10. Review:

I have read and understand the expectations, grading policy, and supplies needed for APES
He leído y entiendo las expectativas, la clasificación política, y los suministros necesarios para el curso

By signing this document I am making a commitment, as a student. The commitment to the class is our responsibility and the commitment to the TEST for AP Environmental Science is your responsibility.

Student Signature
Firma de estudiante

I.D. Number
Identificación

Print Student Name
Nombre del estudiante

Email Address
Dirección de correo electrónico

**Please share this information with your Parent/Guardian and have him/her sign the following:
Comparta esta información con sus padres o tutor y haga que el o ella firmen siguiente:**

By signing this document I am acknowledging that I have read and understand the policies and objectives of this class. The commitment to the class is our responsibility and the commitment to the student is to support and encourage.

Parent / Guardian Signature
Firma de los padres o tutor

Phone Number (w/ Best time to call)
Número de teléfono (mejor tiempo para recibir una llamada)

Email Address
Dirección de correo electrónico

This document ensures my commitment, as a teacher in the science department. The commitment to the class is our responsibility and my responsibility as a teacher is to instruct fairly and adequately to pass AP Environmental Science and the AP Exam.

Mr. Aaron Baldridge, *Teacher*
Mr. Keivon Spencer & Dr. Charles Tuttle, *Department Chairs*



Dallas Independent School District

PARENT/GUARDIAN APPROVAL/RELEASE FORM REQUIRED FOR STUDENT PARTICIPATION IN A FIELD TRIP/TOUR/EXCURSION

2012-2013 School Year

Science & Engineering Magnet High School

Date

School

2012-2013 School Year _____ is my child and is now under my control and is in my custody.
Name of Student _____

Locations in and around Townview Magnet Center (all locations are within walking distance)
Date and Time of Field Trip/Tour/Excursion _____ Date and Time of Return _____

Meet standards of set by Dallas ISD and the state of Texas for AP Environmental Science.
Site(s) to Be Visited _____

Students will transport themselves. No locations will be inaccessible.
Purpose of Field Trip/Tour/Excursion _____

Means of Transportation _____

I desire my child to go on this field trip/tour/excursion and participate in any and all activities of _____ School. I agree that in allowing my child to go on this trip that I will hold the Dallas Independent School District, Trustees, Superintendent, Principals, Teachers, employees, and any other persons assisting with any phase of such trip harmless from any and all liability, claims, and responsibility for making such trip and activities. I further release all of these parties from liability by reason of any accident or injury that might occur while on the trip or participating in such activities.

Date

Signature of Parent/Guardian

Telephone Number

Address